

**Amendment to the Claims:**

**Listing of the Claims**

The listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 and 2 (Cancelled)

Claim 3 (Currently Amended): A rapid dissolving reinforcing filler composition for organic systems comprising an effective amount of surface-modified, pyrogenically produced oxides doped by aerosol with aluminum or salts thereof and having a hydrophobic surface, wherein the oxides are selected from the group consisting of  $\text{SiO}_2$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{TiO}_2$ ,  $\text{B}_2\text{O}_3$ ,  $\text{ZrO}_2$ ,  $\text{In}_2\text{O}_3$ ,  $\text{ZnO}$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{Nb}_2\text{O}_5$ ,  $\text{V}_2\text{O}_5$ ,  $\text{WO}_3$ ,  $\text{SnO}_2$  and  $\text{GeO}_2$ , wherein the hydrophobic surface results from coating of the pyrogenic oxides with one or several compounds selected from the following groups:

a) Organosilanes having either formula  $(\text{RO})_3\text{Si}(\text{C}_n\text{H}_{2n+1})$  or  $(\text{RO})_3\text{Si}(\text{C}_n\text{H}_{2n-1})$ , wherein

$\text{R}$  = alkyl, and

$n = 1 - 20$ ;

b) Organosilanes having either formula  $\text{R}'_x (\text{RO})_y \text{Si}(\text{C}_n\text{H}_{2n+1})$  or  $(\text{RO})_3\text{Si}(\text{C}_n\text{H}_{2n+1})$ ,

wherein

$\text{R}$  = alkyl,

$\text{R}'$  = alkyl,

R' = cycloalkyl

n = 1 - 20,

x+y = 3,

x = 1 or 2, and

y = 1 or 2;

c) Halogen organosilanes having either formula  $X_3 Si(C_nH_{2n+1})$  or  $X_3 Si(C_nH_{2n-1})$ ,

wherein

X = Cl or Br, and

n = 1 - 20;

d) Halogen organosilanes having either formula  $X_2 (R') Si(C_nH_{2n+1})$  or

$X_2 (R') Si(C_nH_{2n-1})$ , wherein

X = Cl or Br

R' = alkyl or cycloalkyl, and

n = 1 - 20;

e) Halogen organosilanes having formula  $X (R')_2 Si(C_nH_{2n+1})$  or

$X (R')_2 Si(C_nH_{2n-1})$ , wherein

X = Cl or Br;

R' = alkyl or cycloalkyl, and

n = 1 - 20;

f) Organosilanes having the formula  $(RO)_3Si(CH_2)_m-R'$

$R$  = alkyl,

$m$  = 0 or 1-20, and

$R'$  = methyl-, aryl-,  $-C_6H_5$ , substituted phenyl groups,

$-C_4F_9$ ,  $OCF_2-CHF-CF_3$ ,  $-C_6F_{13}$ ,  $-O-CF_2-CHF_2$ ,

$-NH_2$ ,  $=N_3$ ,  $-SCN$ ,  $-CH=CH_2$ ,  $-NH-CH_2-CH_2-NH_2$ ,

$-N-(CH_2-CH_2-CH_2NH_2)_2$ ,

$-OOC(CH_3)C=CH_2$ ,

$-OCH_2-CH(O)CH_2$ ,

$-NH-CO-N-CO-(CH_2)_5$ ,

$-NH-COO-CH_3$ ,  $-NH-COO-CH_2-CH_3$ ,  $-NH-(CH_2)_3Si(OR)_3$ ,

$-SH$  or

$-NR'R''R'''$ , wherein  $R'$  = alkyl, or aryl;  $R''$  = H, alkyl, aryl; and  $R'''$  = H, alkyl, aryl,

benzyl, or  $C_2H_4N(R''')_2$ , wherein  $R'''$  = H, or alkyl;

g) Organosilanes having the formula  $(R'')_x(RO)_ySi(CH_2)_m-R'$ , wherein

$R''$  = alkyl or cycloalkyl,

$x+y = 2$ ,

$x = 1$  or  $2$ ,

$y = 1$  or  $2$ ,

$m = 0$  or  $1$  to  $20$ , and

R' = methyl-, aryl, -C<sub>6</sub>H<sub>5</sub>, substituted phenyl groups,  
-C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>,  
-NH<sub>2</sub>, -N<sub>3</sub>, SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,  
-N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>,  
-OOC(CH<sub>3</sub>)C=CH<sub>2</sub>,  
-OCH<sub>2</sub>-CH(O)CH<sub>2</sub>,  
-NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>,  
-NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>,  
-SH or  
-NR'R''R''', wherein R' = alkyl or aryl; R'' = H,  
alkyl, or aryl; and R''' = H, alkyl, aryl, benzyl, or  
C<sub>2</sub>H<sub>4</sub>N(R''''')<sub>2</sub>, wherein R''''' = H, or alkyl ;

h) Halogen organosilanes having the formula X<sub>3</sub>Si(CH<sub>2</sub>)<sub>m</sub>-R', wherein

X = Cl or Br,

m = 0 or 1 – 20,

R' = methyl-, aryl, -C<sub>6</sub>H<sub>5</sub>, substituted phenyl groups

-C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>,  
-NH<sub>2</sub>, -N<sub>3</sub>, SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,  
-N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>,  
-OOC(CH<sub>3</sub>)C=CH<sub>2</sub>,  
-OCH<sub>2</sub>-CH(O)CH<sub>2</sub>,

-NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>,  
-NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>, or  
-SH;

i) Halogen organosilanes having the formula (R)X<sub>2</sub>Si(CH<sub>2</sub>)<sub>m</sub>-R', wherein

X = Cl or Br,

R = alkyl such as methyl-, ethyl-, or propyl-,

m = 0 or 1 – 20, and

R' = methyl-, aryl-, -C<sub>6</sub>H<sub>5</sub>, substituted phenyl groups,

-C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>,

-NH<sub>2</sub>, -N<sub>3</sub>, SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,

-N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>,

-OOC (CH<sub>3</sub>)C = CH<sub>2</sub>,

-OCH<sub>2</sub>-CH(O) CH<sub>2</sub>,

-NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>,

-NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>,

-NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub> or

-SH;

(j) Halogen organosilanes having the formula (R)<sub>2</sub>X Si(CH<sub>2</sub>)<sub>m</sub>-R', wherein

X = Cl or Br,

R = alkyl,

$m = 0$  or  $1 - 20$ , and

$R'$  = methyl-, aryl-,  $-C_6H_5$ , substituted phenyl groups,

$-C_4F_9$ ,  $-OCF_2-CHF-CF_3$ ,  $-C_6F_{13}$ ,  $-O-CF_2-CHF_2$ ,

$-NH_2$ ,  $-N_3$ ,  $SCN$ ,  $-CH=CH_2$ ,  $-NH-CH_2-CH_2-NH_2$ ,

$-N-(CH_2-CH_2-NH_2)_2$ ,

$-OOC(CH_3)C=CH_2$ ,

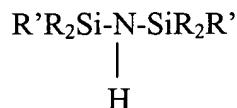
$-OCH_2-CH(O)CH_2$ ,

$-NH-CO-N-CO-(CH_2)_5$ ,

$-NH-COO-CH_3$ ,  $-NH-COO-CH_2-CH_3$ ,  $-NH-(CH_2)_3Si(OR)_3$  or

$-SH$ ;

(k) Silazanes having the formula

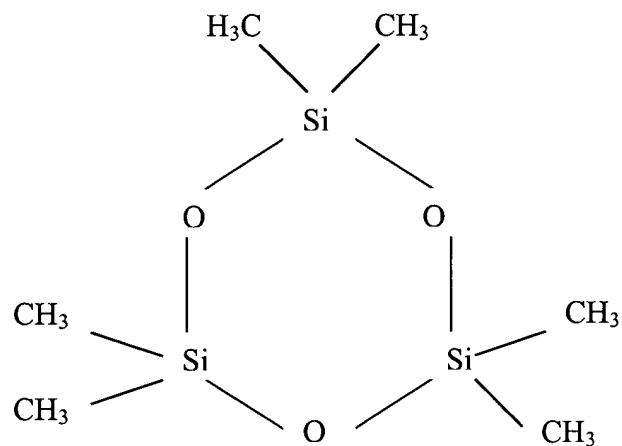


wherein  $R$  = alkyl, and

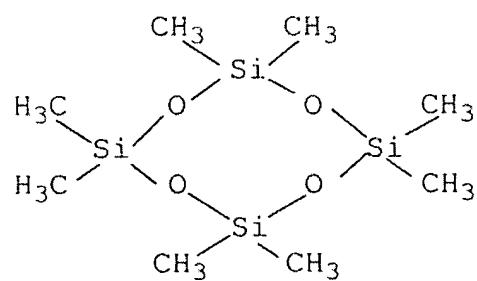
$R'$  = alkyl or vinyl; or

(l) Cyclic polysiloxanes D 3, D 4 or D 5,

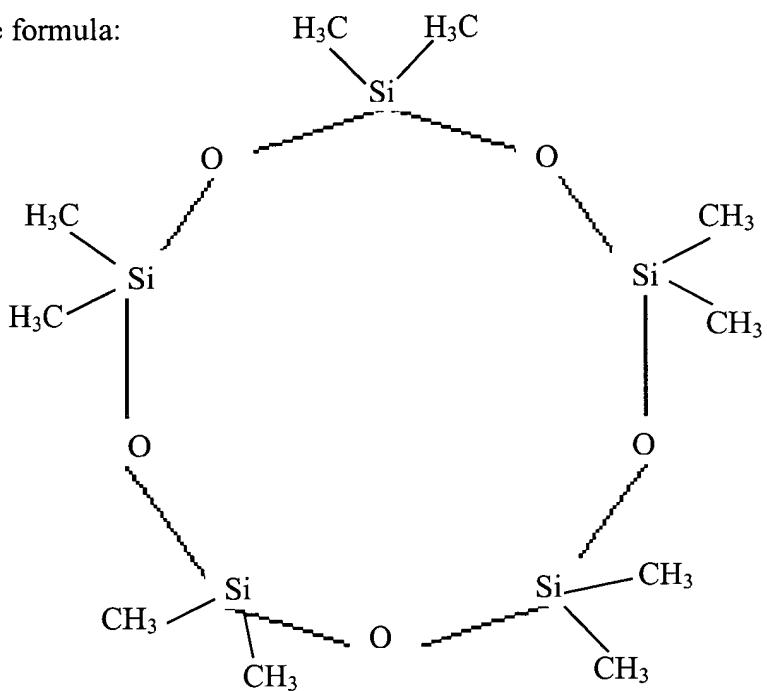
where 1) D3 has the formula:



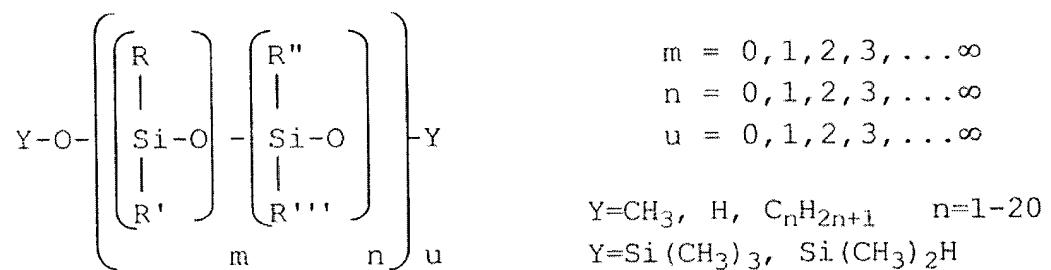
2) D4 has the formula:



and 3) D5 has the formula:



m) Polysiloxanes or silicone oils having any one of the formula



, Si(CH<sub>3</sub>)<sub>2</sub>OH, Si(CH<sub>3</sub>)<sub>2</sub>(OCH<sub>3</sub>) or

Si(CH<sub>3</sub>)<sub>2</sub>(C<sub>n</sub>H<sub>2n+1</sub>), wherein n=1-20,

wherein,

R = alkyl, aryl, (CH<sub>2</sub>)<sub>n</sub>-NH<sub>2</sub> or H,

R' = alkyl, aryl, (CH<sub>2</sub>)<sub>n</sub>-NH<sub>2</sub> or H,

$R''$  = alkyl, aryl,  $(CH_2)_n-NH_2$  or H,

$R'''$  = alkyl, aryl,  $(CH_2)_n-NH_2$  or H.

Claim 4 (Currently amended): A method of producing the surface-modified oxides in accordance with claim 3, comprising placing pyrogenically produced oxides doped by aerosol in a suitable mixing container, spraying the oxides with water and/or acid and then spraying the oxides under intensive mixing with the surface-modification reagent or a mixture of several surface-modification reagents, wherein the surface-modified, pyrogenically produced oxides doped by aerosol and having a hydrophobic surface, wherein the oxides are selected from the group consisting of  $SiO_2$ ,  $Al_2O_3$ ,  $TiO_2$ ,  $B_2O_3$ ,  $ZrO_2$ ,  $In_2O_3$ ,  $ZnO$ ,  $Fe_2O_3$ ,  $Nb_2O_5$ ,  $V_2O_5$ ,  $WO_3$ ,  $SnO_2$  and  $GeO_2$ , wherein the hydrophobic surface results from coating of the pyrogenic oxides with one or several compounds selected from the following groups:

a) Organosilanes having either formula  $(RO)_3Si(C_nH_{2n+1})$  or  $(RO)_3Si(C_nH_{2n-1})$ , wherein

$R$  = alkyl, and

$n = 1 - 20;$

b) Organosilanes having either formula  $R'_x(RO)_ySi(C_nH_{2n+1})$  or  $(RO)_3Si(C_nH_{2n+1})$ ,

wherein

$R$  = alkyl,

$R'$  = alkyl,

$R'$  = cycloalkyl

n = 1 – 20,

x+y = 3,

x = 1 or 2, and

y = 1 or 2;

c) Halogen organosilanes having either formula  $X_3 Si(C_nH_{2n+1})$  or  $X_3 Si(C_nH_{2n-1})$ ,

wherein

X = Cl or Br, and

n = 1 – 20;

d) Halogen organosilanes having either formula  $X_2(R') Si(C_nH_{2n+1})$  or

$X_2(R') Si(C_nH_{2n-1})$ , wherein

X = Cl or Br

R' = alkyl or cycloalkyl, and

n = 1 – 20;

e) Halogen organosilanes having formula  $X(R')_2 Si(C_nH_{2n+1})$  or

$X(R')_2 Si(C_nH_{2n-1})$ , wherein

X = Cl or Br;

R' = alkyl or cycloalkyl, and

n = 1 – 20;

f) Organosilanes having the formula  $(RO)_3Si(CH_2)_m-R'$

R = alkyl,

m = 0 or 1-20, and

R' = methyl-, aryl-,  $-C_6H_5$ , substituted phenyl groups,

$-C_4F_9$ ,  $OCF_2-CHF-CF_3$ ,  $-C_6F_{13}$ ,  $-O-CF_2-CHF_2$ ,

$-NH_2$ ,  $=N_3$ ,  $-SCN$ ,  $-CH=CH_2$ ,  $-NH-CH_2-CH_2-NH_2$ ,

$-N-(CH_2-CH_2-CH_2NH_2)_2$ ,

$-OOC(CH_3)C=CH_2$ ,

$-OCH_2-CH(O)CH_2$ ,

$-NH-CO-N-CO-(CH_2)_5$ ,

$-NH-COO-CH_3$ ,  $-NH-COO-CH_2-CH_3$ ,  $-NH-(CH_2)_3Si(OR)_3$ ,

$-SH$  or

$-NR'R''R'''$ , wherein R' = alkyl, or aryl; R'' = H, alkyl, aryl; and R''' = H, alkyl, aryl,

benzyl, or  $C_2H_4N(R''')_2$ , wherein R''' = H, or alkyl;

g) Organosilanes having the formula  $(R'')_x(RO)_ySi(CH_2)_m-R'$ , wherein

$R'' = alkyl$  or cycloalkyl,

$x+y = 2$ ,

$x = 1$  or 2,

$y = 1$  or 2,

$m = 0$  or 1 to 20, and

$R' = methyl-, aryl, -C_6H_5$ , substituted phenyl groups,

-C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>,  
-NH<sub>2</sub>, -N<sub>3</sub>, SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,  
-N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>,  
-OOC(CH<sub>3</sub>)C=CH<sub>2</sub>,  
-OCH<sub>2</sub>-CH(O)CH<sub>2</sub>,  
-NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>,  
-NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>,  
-SH or  
-NR'R''R''', wherein R' = alkyl or aryl; R'' = H,  
alkyl, or aryl; and R''' = H, alkyl, aryl, benzyl, or  
C<sub>2</sub>H<sub>4</sub>N(R''')<sub>2</sub>, wherein R''' = H, or alkyl ;

h) Halogen organosilanes having the formula X<sub>3</sub>Si(CH<sub>2</sub>)<sub>m</sub>-R', wherein  
X = Cl or Br,  
m = 0 or 1 – 20,  
R' = methyl-, aryl, -C<sub>6</sub>H<sub>5</sub>, substituted phenyl groups  
-C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>,  
-NH<sub>2</sub>, -N<sub>3</sub>, SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,  
-N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>,  
-OOC(CH<sub>3</sub>)C=CH<sub>2</sub>,  
-OCH<sub>2</sub>-CH(O)CH<sub>2</sub>,  
-NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>,

-NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub>, or  
-SH;

i) Halogen organosilanes having the formula  $(R)X_2Si(CH_2)_m-R'$ , wherein

X = Cl or Br,

R = alkyl such as methyl-, ethyl-, or propyl-,

m = 0 or 1 – 20, and

R' = methyl-, aryl-, -C<sub>6</sub>H<sub>5</sub>, substituted phenyl groups,

-C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>,

-NH<sub>2</sub>, -N<sub>3</sub>, SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,

-N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>,

-OOC(CH<sub>3</sub>)C=CH<sub>2</sub>,

-OCH<sub>2</sub>-CH(O)CH<sub>2</sub>,

-NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>,

-NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>,

-NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub> or

-SH;

(j) Halogen organosilanes having the formula  $(R)_2X Si(CH_2)_m-R'$ , wherein

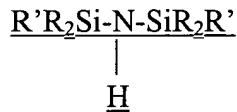
X = Cl or Br,

R = alkyl,

m = 0 or 1 – 20, and

R' = methyl-, aryl-, -C<sub>6</sub>H<sub>5</sub>, substituted phenyl groups,  
-C<sub>4</sub>F<sub>9</sub>, -OCF<sub>2</sub>-CHF-CF<sub>3</sub>, -C<sub>6</sub>F<sub>13</sub>, -O-CF<sub>2</sub>-CHF<sub>2</sub>,  
-NH<sub>2</sub>, -N<sub>3</sub>, SCN, -CH=CH<sub>2</sub>, -NH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>,  
-N-(CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>)<sub>2</sub>,  
-OOC (CH<sub>3</sub>)C = CH<sub>2</sub>,  
-OCH<sub>2</sub>-CH(O) CH<sub>2</sub>,  
-NH-CO-N-CO-(CH<sub>2</sub>)<sub>5</sub>,  
-NH-COO-CH<sub>3</sub>, -NH-COO-CH<sub>2</sub>-CH<sub>3</sub>, -NH-(CH<sub>2</sub>)<sub>3</sub>Si(OR)<sub>3</sub> or  
-SH;

(k) Silazanes having the formula

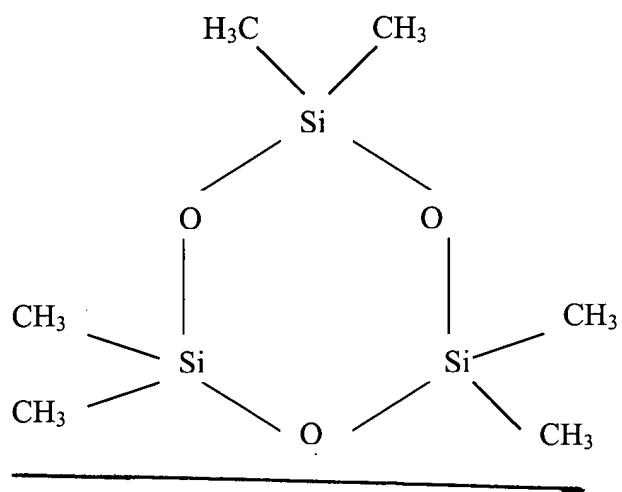


wherein R = alkyl, and

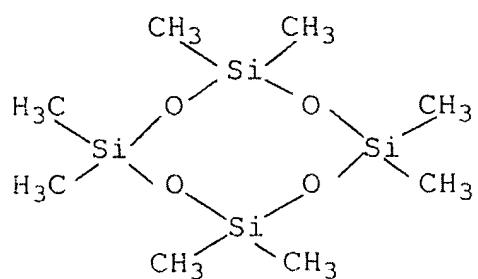
R' = alkyl or vinyl; or

(l) Cyclic polysiloxanes D 3, D 4 or D 5,

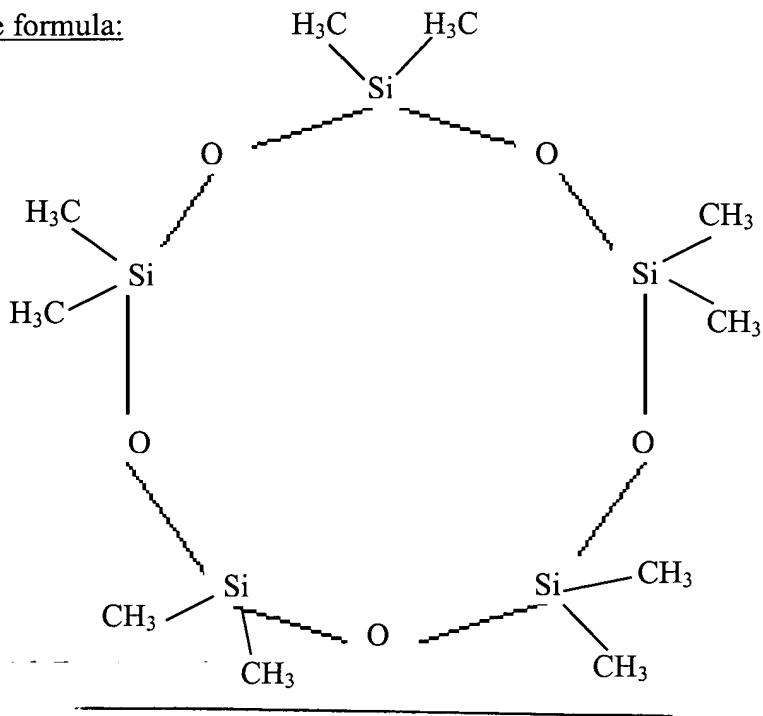
where 1) D3 has the formula:



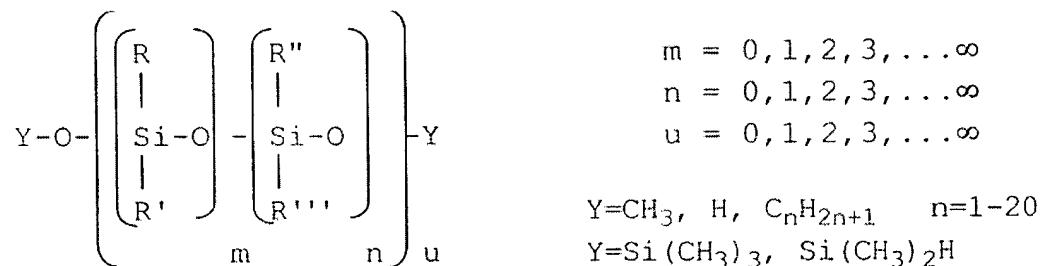
2) D4 has the formula:



and 3) D5 has the formula:



m) Polysiloxanes or silicone oils having any one of the formula



, Si(CH<sub>3</sub>)<sub>2</sub>OH, Si(CH<sub>3</sub>)<sub>2</sub>(OCH<sub>3</sub>) or

Si(CH<sub>3</sub>)<sub>2</sub>(C<sub>n</sub>H<sub>2n+1</sub>), wherein n=1-20,

wherein,

R = alkyl, aryl, (CH<sub>2</sub>)<sub>n</sub>-NH<sub>2</sub> or H,

R' = alkyl, aryl, (CH<sub>2</sub>)<sub>n</sub>-NH<sub>2</sub> or H,

R'' = alkyl, aryl, (CH<sub>2</sub>)<sub>n</sub>-NH<sub>2</sub> or H,

R'''= alkyl, aryl, (CH<sub>2</sub>)<sub>n</sub>-NH<sub>2</sub> or H.

Claim 5 (Previously presented): In a reinforcing filler composition wherein the improvement comprises the surface-modified oxides according to claim 3 as reinforcing filler.

Claim 6 (Cancelled)

Claim 7 (Original) The method of claim 4 further comprising re-mixing at 15 to 30 minutes and tempering at a temperature of 100 to 400 °C for a period of 1 to 6 hours.

Claim 8 (Previously presented) The surface-modified, pyrogenically produced oxides according to claim 3 wherein the cyclic polysiloxanes is D 4.

Claims 9 -12 (Cancelled)